

NEW GEOMETRIDAE FROM EAST JAVA.

By LOUIS B. PROUT.

SURPRISINGLY little has hitherto been known of the Geometrid fauna of East Java. It has therefore been a task of considerable interest to work through some collections received thence by the Tring Museum during the past few years. The time is not yet ripe for publishing an even moderately complete list of Javan Geometridae, and I propose to leave the many new faunistic records for other occasions; but the species and races which are new to science reach a goodly number and are well worthy of immediate attention.

First came a relatively small but valuable collection from Mr. J. P. A. Kalis from Trettes, 3,000 feet, May 1932, and Kangean Island (Karuazu and Aerkohkep), April 1932, particularly important for the records; several obviously or very probably new species or races belonged mostly to obscure or difficult groups, or were represented only by single specimens, so that their publication has had to be deferred. More recently (April 1933 and onward) Mr. A. M. R. Wegner and he have made very extensive collections, chiefly at Nongkodjadjar, 4,000 feet, Djoenggo (Ardjoeno), 4,500 feet, Singolangoe (Tengger), 5,000 feet and Kletak (Tengger), 6,000 feet. In the following descriptions it has been considered unnecessary to repeat the details every time these localities are referred to.

SUBFAM. OENOCHROMINAE.

1. *Ozola apparata multiplex* subsp. n.

♂♀, 33-36 mm. Extremely variable in the extent of the markings, but agreeing entirely with *a. apparata* Prout (1928) in their position and general form. Considerably smaller, the costal streak of the forewing almost invariably broken in places into spots or dashes, not so black as in *a. apparata*, seldom, if ever, showing the steady widening distally to which attention was called in the description of the latter; apical patch very rarely containing any noticeable white maculation, absolutely concolorous with the dark maculation of the costa. The variation in this species does not appear to be sexual.

Nongkodjadjar, 9 ♂♂, 2 ♀♀, including the type ♂; Singolangoe, 1 ♂, 2 ♀♀; Djoenggo, 2 ♂♂, 2 ♀♀.

2. *Ozola spilotis pausteria* subsp. n.

♂♀, 34-38 mm. Considerably larger than *s. spilotis* Meyr. (1897), all the blackish maculation reduced in size or quantity (except in an aberration described below); in particular the median series almost entirely obsolete excepting sometimes at the folds of the forewing, the subterminal and terminal spots not confluent into a subapical patch, the subterminals of the hindwing quite small; in the type ♂ the cell-spot of the hindwing is also minute, but this does not apply to the rest of the series. The dark costal streak, so characteristic of the species, remains rather broad, though slightly variable individually.

Singolangoe, 3 ♂♂, 1 ♀, including the type; Djoenggo, June 1934, 2 ♀♀.

One ♂ and one Djoenggo ♀ represent a striking aberration, both wings

with a rather broad terminal band, formed by the almost entire confluence of the subterminal and terminal series of spots; it is very distinct from all forms of *apparata* in the clear median area, etc.

SUBFAM. **HEMITHEINAE.**

3. **Archaeobalbis holelaica** sp. n.

♀, 52 mm. Palpus with 3rd joint shortish-moderate (about as in *cristata* Warr., 1894, ♀, or a trifle shorter). Head and body above concolorous with upperside of wings; body beneath concolorous with underside of wings, legs darker.

Forewing rather uniform olive-green, the dentate lines scarcely visible in slightly darker green; costal region faintly darker; cell-mark small, a trifle larger than the black "pupil" of *cristata* but without definite grey circumscription; the brown, blackish-mixed maculation outside the postmedian weak and incomplete, not noticeable except an irregularly furcate mark between the radials and an irregular stripe from between the medians to hindmargin; terminal dots moderate.—*Hindwing* similar, the cell-spot (dot) a little smaller.

Underside of a nondescript whitish, tinged with olive-buff, nearest that of *cristata* ab. *subopalina* Warr., perhaps slightly greyer; cell-spots rather smaller than in *cristata*; outer band narrow, shadowy, brownish, with scarcely any vinaceous tinge.

Djoenggo, Ardjoeno, 4,500 feet, May 1934 (J. P. A. Kalis), 1 ♀.

Evidently nearest to *cristata*, conceivably a race thereof.

4. **Neobalbis flavibasalis hemiticheres** subsp. n.

♂♀. Differs from *f. flavibasalis* (Warr., 1896) in that the blackish outer band of the underside is much less broad, behind the middle narrower than the white area which separates it from the termen, whereas in all the forms hitherto known it closely approaches the termen, especially on the forewing, between the radials often reaching thereto.

E. Java: Singolangoe, the type ♂ and 2 ♀♀; Waterfall Baeng, 1,200 feet, 1 ♀ and Djoenggo, 1 ♀ (J. P. A. Kalis).

The ♂ is about normal in size, both the ♀♀ very large (length of a forewing 27–28 mm., against 23–25 for normal ♀♀). Warren's type locality "Java" should, I think, read "West Java."

5. **Pingasa atropa** sp. n.

♂, 48–52 mm.; ♀, 53–54 mm. At first sight closely similar to *chlora* (Stoll, 1782), though definitely larger than *P. c. juvenis* Warr. (1894), with which it was taken. Easily distinguished as follows:

Face more buff, inclining to orange in upper part and without the black upper edge. Palpus of ♂ with 3rd joint appreciably shorter. Wings rather more closely (though finely) irrorated with grey than in most *chlora*, an intensification of the bright red scales particularly manifest in the postmedian costal spot of the forewing, the strong vein-dots or short teeth on outside of postmedian and on hindwing towards the abdominal margin; antemedian of forewing almost straight from costa to M at base of M² and even between this and SM² only weakly excurved (a sharp contrast to the twice strongly outbent line of

chlora). Underside with the subterminal band attenuated and incomplete, about as in rather extreme examples of *lutriata* Prout (1916), on forewing developed only from costa about to radial fold, on hindwing lost, or almost lost, between the radial and the medians, submacular anteriorly and posteriorly.

Nongkodjadjar, January to June, 13 ♂♂, 3 ♀♀, including the ♂ type; Singolangoe, 10 ♂♂, 8 ♀♀; Djoenggo, 5 ♂♂, 6 ♀♀; Kletak, 6 ♂♂, 1 ♀.

6. *Dindica polyphaenaria sundae* subsp. n.

Thoracic tufts with less red admixture than in *p. polyphaenaria* (Guen.). Forewing generally with termen slightly less oblique anteriorly; more uniform in colour. Hindwing with the yellow ground-colour less projecting outward in the middle; the proximal edge of the dark border roughened by dark vein-dots. Underside with much white between the yellow ground-colour and the (generally more or less narrowed) dark outer band; anterior part of this band on the forewing always red (in *p. polyphaenaria* rarely so).

Nongkodjadjar, Djoenggo, Singolangoe and Kletak, a good series. I unite with them a ♀ from Mondoktoempang, W. Bali, October 1934 (J. P. A. Kalis) and provisionally the Sumatran race although that may perhaps prove, on closer study, somewhat intermediate or in some other way racially differentiable.

7. *Agathia abacta* sp. n.

♀, 46–48 mm. In shape, coloration, palpal length, etc., similar to *lycaenaria* (Koll., 1844), abdomen with the brown maculation, however, more as in *lycaenidia* Bastelb. (1911) or *maculimargo* Prout (1912).

Forewing with the usual basal patch and costal border; median band (row of spots) rather large, the first and second spots at about 8 mm. from base, separated only by the radial fold (hind fork of cell-fold), the posterior one at 6 to 5 mm., reaching from fold to hindmargin, twice slightly incurved (on left wing therefore somewhat suggesting a thick figure 3); outer band unusually proximal (at least in its posterior part), anteriorly midway between median band and apex, its interruptions about as those of the median, its central element (between radial fold and M^2) strongly incurved and broadening in cellule 3, greatly attenuated before M^2 , its hind spot rather broad, with its centre about 3 mm. from tornus; terminal line very slightly interrupted midway between the veins, expanded apically into a quadrate spot, at R^2 , M^1 and M^2 into slight (much flattened) triangles, at R^3 into a less small triangle.—*Hindwing* with the band even more proximally placed than in the ♀ of *maculimargo*, to which it probably comes nearest, on an average fully 5 mm. from termen, inbent and thickened between SC^2 and R^1 , very characteristically formed between R^3 and M^2 , where it is twice very deeply incurved, with a resultant sharp prong outward on M^1 ; terminal line with slight expansions on SC^2 and R^1 and a large one at and proximal to the tail—about as in *lycaenaria* but with the enclosed white spot much broader, almost circular.

Underside with the principal markings showing, but reduced.

Nongkodjadjar, January 1934, type ♀; Singolangoe, 1 ♀.

Apart from the still more proximally placed band, the hindwing is very distinct from that of *maculimargo* in the presence of the (large) white tail-spot.

8. *Tanaorhinus vittata kalisi* subsp. n.

♂♀, 42–46 mm. Coloration less contrasting than in the other races of *vittata* (Moore, 1867), the pale parts (except the covered costal margin of the hindwing) being less white, the green line through the postmedian band relatively broad; median area of forewing less narrowed posteriorly than in the other races, slightly variable, but typically measuring 4.5 mm. at hindmargin. Underside pale green with rather conspicuous broad grey-green postmedian line.

Djoenggo, Ardjoeno, 4,500 feet, May–June 1934, 9 ♂♂ (J. P. A. Kalis), including the type; Kletak, 1 ♂; Nongkodjadjar, 1 ♀.

9. *Oenospila strix gemmans* subsp. n.

♂♀. Differs from *s. strix* (Butl., 1889, N. India) in that the blotch at middle of abdominal margin of hindwing is reduced, reaching the fold instead of M^2 , and the fringes of both wings green, with pink spots at the veins, only on the hindwing apically with the pink suffusion which overspreads them in *s. strix*.

Singolangoe, June 1934, type ♂, April 1934, allotype ♀; Djoenggo, June 1934, 2 ♀♀.

10. *Hemithea nigriparmata* sp. n.

♂, 32 mm. Very near *melalopha* Prout (1931), from Luzon. Larger; abdomen and apparently the valves (no dissection made) relatively longer, the crests somewhat less large, the anterior one narrow, reddish, black-edged laterally, the posterior predominantly black, rounded off behind.—*Forewing* with apex not produced, termen still less gibbous than in *melalopha* (thus considerably less than in *quadripunctata* Warr., 1896); markings almost identical, the white marks which accompany the faint lines a little more conspicuous, especially those which run from SM^2 to hindmargin.—*Hindwing* decidedly more elongate abdominally than in *melalopha*; markings about the same.—Underside, as in *melalopha*, unmarked; fringe green in proximal part, greyer in distal.

Trettes, 1 ♂.

11. *Hemithea tranquilla* sp. n.

♂, 24 mm. Like *simplex* Warr. (1897), but with the hindtibial process more strongly developed, abdominal crests minute and pale, forewing with costal edge only sparsely dark-dotted, lines not dark-shaded in median area, the postmedian of the forewing slender and only weakly undulating, while that of *simplex* has the deep sinuosities of the *insularia* Guen. group.

Nongkodjadjar, January 1934, the type in very perfect condition. Trettes, 2 ♂♂, one fairly good, the other discoloured.

12. *Hemithea vesta* sp. n.

♂, 20 mm. Smaller than *simplex* and *tranquilla*. Face somewhat lighter (probably clear green when fresh, but somewhat faded). Palpus appreciably shorter (about $1\frac{1}{4}$). Antenna proportionately stouter, with the ciliation dense and rather longer (well over 1). Abdominal crests very slight, concolorous.—*Forewing* somewhat blunter, with termen less oblique; in the strong dark costal maculation and traces of dark-green edges to the lines in median area nearer to *simplex* than to *tranquilla*, though the dark green is slender and inconspicuous; postmedian line slightly curved near costa, but without appreciable further

curvature, though slightly (extremely slightly except at the radials) lunulate inward between the veins.—*Hindwing* much less strongly angled than in *simplex* and *tranquilla*, only about as in typical *Chlorissa*; postmedian line much less sinuous than in the allies.

Trettes, 1 ♂. A worn ♀ from the same locality and clearly belonging to it (though the costal edge has almost lost its maculation) measures fully 23 mm. In both examples R^1 of the forewing is connate with SC^{2-5} and R^3 with M^1 .

13. *Hemithea perfida* sp. n.

♂, 20 mm. Might at first sight be mistaken for a sport of the preceding, with both wings more triangular, the termen of the forewing being very straight, that of the hindwing also less convex than in *vesta*, the bend in the middle extremely slight, the tornal region somewhat prolonged. Antenna slender, with ciliation not quite 1. Hindtibial process longer than the spurs (in *vesta* shorter).—*Forewing* with costal edge white; postmedian line a little less oblique than termen (in the allies parallel with it), virtually straight and entirely without crenulation or lunules.—*Hindwing* with postmedian virtually straight.

Trettes, 1 ♂.

The forewing has both R^1 and R^3 perceptibly though only very slightly stalked. The genitalia differ from those of *vesta*, both in the shape of the dorsal part of the valve, which is longer, tapering, pointed (in *vesta* broad to near end, blunt) and in the armature of the sacculus, which consists of an ample bed of spines (more as in the genotype, *aestivaria* Hb.), while *vesta* shows only a very narrow ridge.

14. *Comostola hyptiostega* sp. n.

♂, 22–23 mm. Antennal pectinations very long (*chlorargyra* group). Coloration nearly as in *chlorargyra* (Walk., 1861, the most bluish-green species hitherto described in the group) or with a slightly bluer or greyer tinge; the irregularly infuscated dorsum of the abdomen almost without white admixture, the paler parts (notably the basal patch) being predominantly flesh-colour.—*Forewing* with the borders and cell-mark almost exactly as in *confusa* Warr. (1905), but with the spot which projects forward at the end of the hindmargin broader and its enclosed shading largely light-reddish; this spot (which in the rest of the group may always be called pyramidal or conical) four-sided, crossing M^2 and with a flat but sloping "roof" which runs from M^2 proximad in the direction of the hinder end of the cell-mark.

Djoenggo, Ardjoeno, 4,500 feet, June 1934 (J. P. A. Kalis), 2 ♂♂. This is one of the group of forms mentioned in vol. xii of Seitz (p. 131) as probable races of *confusa* Warr. or—comprehensively—of *minutata* (Druce, 1888); pending a thorough revision, I give it a binomial designation.

SUBFAM. STERRHINAE.

15. *Dithecodes specialis* sp. n.

♂♀, 27–30 mm. Near the well-known *idaca* (Swinh., 1892) of the Khasis. Antenna of ♂ with the pedicellate fascicles still longer (about as in *inornata* [Warr., 1896]). Abdomen beneath strongly tufted. Hindfemur and tibia of ♂ with dense tufts and peneils, in part reddish-mixed.—*Forewing* with apex slightly more produced than in *idaca*; distal areole generally very small; colora-

tion and markings virtually as in *iduca*; black cell-dot relatively a little larger, grey lines a little less weak, teeth of postmedian rather stronger, an interrupted terminal rather more definitely indicated, the dots at the veins not quite so cleanly white.—*Hindwing* with similar distinctions and with a black dot between the white cell-dots, curiously reminiscent of some South American *Dilhecodes*.—Underside of the ♂ characterized by the development of coarse specialized scaling, of a similar rusty reddish colour to that of *D. inornata aviara* Prout (1934) but slightly browner, the distribution different, that of the forewing being slighter and more restricted to the proximal part than that of the hindwing; on the latter it covers the greater part of the wing, leaving free only a pale terminal area of less than 3 mm. width anteriorly and gradually narrowing to scarcely over 1 mm. posteriorly.

Singolangoe (loc. typ.), April-May, 4 ♂♂, 2 ♀♀; Nongkodjadjar, 8 ♀♀; Djoenggo, 1 ♂, 4 ♀♀; Waterfall Baoeng, 1,200 feet, 3 ♀♀.

16. *Calothyranis punctinervis piperata* subsp. n.

♂♀. More densely dark-irrorated than *p. punctinervis* (Prout, 1916) from W. Java, cell-dots often enlarged, postmedian line of hindwing nearly straight.

Nongkodjadjar and Singolangoe, a series of over 20, the type ♂ from Nongkodjadjar.

The two ♀♀ from E. Java (Tosari, 7,000–9,000 feet) which I associated with the ♂ holotype (Sindanglaya, 3,600–4,000 feet) belong to the new race. The Tring Museum has both sexes of the name-typical western race.

17. *Problepsis exanimata* sp. n.

♂, 38 mm.; ♀, 41–43 mm. Face dirty whitish, the upper part fuscous. Vertex blackish. Antenna light brown; pectinations in ♂ moderate (3 or 4), about as in *magna* Warr. (1906) or scarcely longer. Hindtarsus of ♂ less than $\frac{1}{2}$ tibia (about as in *magna*).

Wings white, without the brownish suffusions of the near allies (about as in *sancta* Meyr., 1888, or the African *Problepsis*).—*Forewing* with costal edge very little darkened; ocellus roundish, rather less large than in *magna*, its outer ring rather slender, not quite regular, light brown, dark spots (sprinkled with the metallic scales) distributed within its circumference, the central part pale; the shadowy lines (narrow bands) grey, not brownish; median line bearing a very small yellow-brown spot in front of SM², with some silvery scales proximally and distally; postmedian somewhat oblique outward to R¹, incurved between the radials, then almost straight; subterminal spots regular, about as in *magna*; the smaller spots between this and termen well developed (as in *korinchiana* Rothsch., 1920, or more confluent); terminal line developing small interneural spots in its anterior part.—*Hindwing* with the "ocellus" (R¹ to M¹) narrow, ill-defined, the brownish marks in cell which, in most of the species, bound it proximally quite obsolete, so that there remain only the silver spots in and behind end of cell, a slight grey dash on DC² and the outer silver series with a slight accompaniment of dark scales; silvery markings at middle of SM² normal; postmedian line and both the outer series of spots continued; terminal line slender.

Underside with the principal markings faintly visible.

Nongkodjadjar, 1 ♂, 2 ♀♀; Djoenggo, 2 ♀♀; Singolangoe, Tengger, 1 ♀. The British Museum has a ♀ from Mt. Ardjoeno and one from "S. Java" (Fruhstorfer).

18. *Scopula mecysma mesites* subsp. n.

♂♀. Much darker than *m. mecysma* (Swinh., 1894), excepting occasional aberrations thereof, the colour approximating closely to that of its larger relative *violacea* Warr. (1897). Forewing with antemedian and median lines less rigidly straight; postmedian with appreciable sinus between the radials (less pronounced than in *violacea*) and a decidedly stronger one posteriorly. Hindwing with proximal line a little less fine and less firm than in *m. mecysma*, not quite so obliquely placed.

Singolangoe, type and another ♂; Nongkodjadjar, 2 ♀♀.

19. *Scopula wegneri* sp. n.

♂♀. Near *tosariensis* Prout (1923), which occurs with it in both its known localities. With attention, however, very easy to distinguish.

Face with slightly more extended white or whitish lower part. Hindtibial pencil of ♂ stronger.—*Forewing* with a slightly more brownish tinge and generally with stronger irroration; postmedian line appreciably farther from termen and with a deeper sinus between the radials; median shade much less straight than in *tosariensis*; terminal dots sharp, well isolated on the underside (where in *tosariensis* they are connected by a line).—*Hindwing* with similar distinctions.

Eighth sternite of ♂ with the right ceras long, the left aborted (in *tosariensis* vice versa).

Nongkodjadjar (loc. typ.) and Singolangoe, a series of 20 in all.

SUBFAM. LARENTIINAE.

20. *Gonanticlea penicilla ambliia* subsp. n.

♂, 35–37 mm.; ♀, 40 mm. Differs from *p. penicilla* Prout (1932, W. Sumatra), apart from its slightly larger size, in the strong dark suffusions of the hindwing and underside, which—as in the dark forms of *occlusata* (Feld., 1875)—dim, or in large part entirely suppress, the bright orange of *p. penicilla*. Median band of ♂ paler than in this; ♀ much like an overgrown dark *occlusata* ♀ (the provisional reference to the sex in Nov. Zool., xxxviii. 104, is confirmed).

Nongkodjadjar, 2 ♂♂, 1 ♀; Singolangoe, 1 ♂.

In describing this species I neglected to note the interesting specialization of the ♂ antenna; the end is darkened and very appreciably fusiform, recalling the genus *Rhopalodes*.

21. *Ecliptopera odontoplia* sp. n.

♂, 42–46 mm.; ♀, 46–50 mm. Very similar to *ctenoplia* Prout (1931), distinguished as follows:

On an average larger.¹ Antenna of ♂ merely serrate, with fascicles of quite short cilia.—*Forewing* with the broad median band more uniformly dark, its traversing lines less noticeable, its whitish boundary-lines with some well-appreci-

¹ "52" in the original description of *ctenoplia* was an unfortunate misprint for "42," compare the remark "smaller" [than *zophera* Prout]; the actual measurements of the *ctenoplia* now known to me are: ♂, 41–44 mm.; ♀, 43–47 mm.

able differences (see below); dark terminal patch between apex and R^3 generally broader.—*Hindwing* very uniformly dark grey, not becoming paler costally nor (as in some ♂♂ of *ctenoptlia*) apically, even the pale distal edging of the postmedian line quite indistinct.—Underside much less (in the type form hardly at all) variegated with pale buff.

Singolangoe, 5 ♂♂, 6 ♀♀ (collected with 3 ♂♂ and 1 ♀ of *ctenoptlia*). Further examples subsequently received from other Tengger localities.

Both this species and *ctenoptlia* have proved to be variable, especially perhaps in the ♀; the intermediate areas of the forewing may be almost concolorous with the median band or strongly differentiated in brown (*odontoptlia*) or more olivescient (*ctenoptlia*). The lines which bound the median area (which were not described in detail in the original account of *ctenoptlia*) also vary slightly, yet present some useful differential characters between the two Tengger *Ecliptopera*; the ante-median shows in *ctenoptlia* some marked irregularities in its posterior half which are not observable in *odontoptlia*, either an acute tooth outward at fold or a pronounced lobe inward between this and SM^2 (or generally both) being developed; the postmedian shows slighter outward projections between R^3 and M^2 in *odontoptlia* than in *ctenoptlia*. Finally, the dark ♀♀ of *ctenoptlia* (and to some extent the ♂♂) show a pale olivaceous-buff subterminal spot from M^1 to before R^3 which is wanting in *odontoptlia*.

22. *Photoscotosia multiplicata erebenna* subsp. n.

Forewing considerably darker than *m. multiplicata* Warr. (1898, Ardjoeno, 8,000 feet), commonly dark almost throughout, sometimes with the ground-colour pale, in that case without the "reddish" brown tone of the name-typical form; in some aberrations some reddish gloss developed in the pale parts of the median area only.—*Hindwing* with the dark parts much more blackish than in *m. multiplicata*.

Mt. Moenggal, 9,000 feet (Bromo to Caldeira), January 1934 (J. P. A. Kalis), a very long series of both sexes, including a few of ab. *atrifasciata* Warr. (1899), better entitled to that appellation than Warren's dark-brown-banded type.

23. *Collix griseipalpis oblitera* subsp. n.

♂, 31 mm. Rather smaller and narrower-winged than *g. griseipalpis* Wileman (1916), less glossy and more weakly marked, the lines almost obliterated, even their costal commencements on the forewing less black than in the other races; the white subterminal dots very small. Underside nearly normal, but with blackish subterminal spots on the grey outer band obsolescent.

Nongkodjadar, 1 ♂.

2 ♀♀ from Djoenggo, subsequently received, are larger than the ♂ (35 and 36 mm.), but otherwise conformable.

24. *Chloroclystis pallidivirens pullivirens* subsp. n.

Much darker (grey-green than *p. pallidivirens* Warr. (1903; on the discovery of the ♂ made genotype of *Ptychotheca* Warr., 1906), the reddish sealing replaced by black or blackish; forewing with postmedian line somewhat more strongly oblique inward in anterior part; termen of hindwing slightly more strongly sinuous.

Nongkodjadjar, 4 ♂♂, 4 ♀♀, including the type; Singolangoe, 2 ♂♂, 6 ♀♀; Kletak, 6 ♀♀. A ♂ and 5 ♀♀ from Tosari, 7,000–9,000 feet (E. A. Cockayne) in my collection have long awaited description.

25. *Chloroclystis thaumasta* sp. n.

♂, 27 mm. Head and body nearly as in the well-known Indian *chlorophilata* (Walk., 1862), the face, with the well-developed cone, whiter, the light-brown palpus mixed with black on basal joint.

Forewing distorted tornally, the termen bending inward from M^1 to M^2 , the terminal region and fringe bearing on the underside, from the median interspace to the hindmargin, long specialized scaling and along the termen itself a dense ridge of suberect brown hair-scaling; colour and markings almost as in *chlorophilata*, the costal marks rather larger and blacker, the terminal rather blacker, an ill-defined white median suffusion (broadest and most definite anteriorly), the white subterminal much better developed than in *chlorophilata*.—Hindwing with costa almost straight, apex produced to an acute angle at C, termen thence extremely oblique inward to a bend about R^3 , the tornal part thereafter produced into a rounded lobe; SC^2-R^1 stalked to $\frac{1}{2}$, then violently divaricating, radials widely separated, R^3-M^1 connate; the whole wing, including the coarse fringes, specialized, only the abdominal region on the upperside normally scaled (green, with black bands); the triangular anterior part on upperside vitreous, with a small patch of buffy light-brown scaling in the furcation of SC^2-R^1 , the posterior lobe with long blackish and deep-green hair-scaling, the fringe of this part equally dark.

Forewing beneath much as in *chlorophilata* but rather darker, the oval patch of specialized scaling at M^2 wanting, its function being obviously served by the larger tornal patch. Hindwing beneath clothed with specialized blackish scaling.

Kletak, Tengger, 6,000 feet, May 10, 1934, 1 ♂.

A remarkable development, somewhat analogous to *triangularis* Warr., 1895, in *Sauris* (section *Dystypoptila*).

26. *Acolutha pulchella interposita* subsp. n.

♂, 22 mm. Intermediate in size and colouring between *p. pulchella* (Hmps., 1891, India) and *p. semifulva* Warr. (1905, Irian), the brown costal region of the forewing not quite so dark as in the former and not suffusing the base, the yellow area less irrorated posteriorly, the double postmedian line more sharply defined by white distally, the delicate white-grey and violet-grey of the termen and of the hindwing clearer than in *p. pulchella*, the hindwing altogether more variegated, the bandlike yellow suffusion outside its cell better developed, the two outer bands conspicuously dark-spotted in their posterior part, as in *p. semifulva*.

Nongkodjadjar, 3 ♂♂.

27. *Acolutha pictaria flavifascia* subsp. n.

Upperside with the yellow bands broader and brighter than in *p. pictaria* (Moore, 1888). Underside of the forewing with the brown costal part rather broad and not, or scarcely, encroached upon by the white ground-colour which,

in *p. pictaria*, tends to separate the apical patch from the proximal-costal streak.

Trettes, 1 ♀; Nongkodjadjar (loc. typ.), a good series; Singolangoe, 2 ♂♂, 2 ♀♀.

SUBFAM. GEOMETRINAE.

28. *Hemerophila canidorsata nychia* subsp. n.

Variable, but almost always readily distinguishable from the Indian races of *canidorsata* Walk. (1866) by the heavy slaty-blackish cloudings, which darken the abdomen dorsally and may suffuse almost the whole of the ♂ hindwing and a great part of its forewing (leaving more or less free the brown distal-costal patch and some parts of the distal and hindmarginal areas) or, when less extended, will be at least conspicuous in the basal and the anterior median regions of the forewing and in some fasciation outside the postmedian of both wings. Even in the ♀, which (as in all the forms) is far more variegated, there is a characteristic darkening distally about the radials, and perhaps the 1st median, of the forewing and the band outside the postmedian of the hindwing is heavier than in most Indian forms. The white subterminal dot of the hindwing on the radial fold usually stands out very sharply. Underside proximally more whitish (less brown) than in the most similar *c. canidorsata* and with the subterminal band rarely so well formed. A rare ♂ aberration, with less clouding, is almost equally characteristic on account of the intensified, though narrow, dark shades which accompany the principal lines.

Nongkodjadjar, very common; Singolangoe; Trettes; Djoenggo.

The hair on hindwing beneath, though strong and coarse at abdominal margin, is scarcely so extended forward as in the other races, scarcely reaching radial fold.

29. *Medasina strixaria longirama* subsp. n.

♂, 71–80 mm.; ♀, 90–98 mm. Nearest to *M. s. celebensis* Prout (*Bull. Hill Mus.*, ii. 252), but with the ♂ much darker, its pale parts colder, less ochreous in tone, the terminal markings beneath whiter.

Nongkodjadjar (loc. typ.); Singolangoe; Djoenggo; Kletak. A good series.

30. *Medasina nigrifasciata circumplexa* subsp. n.

♂♀. Differs from *M. n. nigrifasciata* (Warr., 1896, as *Parasynegia*) in having all the subsidiary black spots (first three costal, radial at termen and the one hindmarginal) on the forewing enlarged, the broad anterior part of the submarginal fascia of the hindwing, on the other hand, obsolete.

Tengger: Singolangoe, April–June 1934, the type and 3 other ♂♂, 1 ♀; Kletak, June 1934 (J. P. A. Kalis), 2 ♂♂.

Warren's type, from "S. Java" (Fruhstorfer)—i.e. the southern part of West Java—has remained unique, but the racial distinctions are probably constant. By venation the species is a "*Medasina*" in sens. Hmps., possibly remotely related to *reticulata* Hmps., 1895, but very distinct from anything else yet known.

31. *Xandrames latiferaria mulsa* subsp. n.

Very similar to *X. l. curvistriga* Warr. (1894), from the Khasis. The dark ground-colour less mixed with brown, especially apically on the forewing and

terminally on the hindwing; the broad whitish band of forewing distally almost straight-edged, proximally with the ground-colour projecting into it somewhat less sharply behind M^1 than in *I. curvistriga*; the two blackish lines on the apical patch, or at least the second one (the distal), narrower; the pale terminal line of the hindwing rather better differentiated on the underside.

Singolangoe, the type ♂. Mt. Gedeh, a ♂ in coll. Brit. Mus. Two ♂♂ of a similar, but larger and brighter form (probably a separable race) were collected in S.W. Sumatra by the Pratts for the late Mr. J. J. Joieey. I know of no other Malaysian material in the group except *eucozona* Prout (1926), which is provisionally regarded as a separate species.

32. *Cleora variegata convariata* subsp. n.

On an average a trifle larger than *v. variegata* (Moore, 1867) and (*v.?*) *hypopocila* Prout (1928). Variable, but generally easy to distinguish from both (especially *hypopocila*) by the more sombre appearance of the ♂ upperside, due to an intensification of the dark clouding in the distal and part of the proximal area of the forewing, sometimes also the median area; underside of the ♂ more brightly ochre-yellow than in *variegata*, closely resembling that of *hypopocila*, the dark band of the hindwing generally obsolete posteriorly or even throughout; cell-spots fairly large.

Nongkodjadjar (loc. typ.); Singolangoe; Djoenggo; Ardjoeno; Kletak, an enormous series.

If the slight structural deviations from *variegata* which I have noticed in *hypopocila*—antennal pectinations somewhat longer, costal margin of hindwing at base slightly more expanded—prove constant and of sufficient taxonomic value, the two island races will stand as *C. h. hypopocila* and *C. h. convariata*. So far as checked, the pectinations in these continue about to joint 40, in *C. variegata* not quite so far.

33. *Alcis* (?) *melanographes* sp. n.

♂♀, 22–29 mm. Close to *A. (?) albigrisea* (Warr.),¹ of which I at first supposed it a well-differentiated race. Antenna of the ♂ with the pectinations

¹ *Fidonia albigrisea* Warr., Nov. Zool., iii. 407 (1896) (W. Java). Founded on a single ♂ in good condition (but that the antennae, except a short basal remnant, are lost), which has never been matched, nor hitherto closely approached. Warren's description is good up to a point, but the generic placing was altogether wide of the mark—presumably due to the echequered fringes and some vague reminiscence of whitish *Fidonia* (sens. lat.) *carbonaria* (Cl.) or ♀ *atomaria* (L.), the somewhat more similar *Chiasmia glarearia* (Brahm) being debarred, from Warren's point of view, by its non-pectinate antenna—and not a single structural detail was given. It is therefore desirable, in erecting a closely related species of somewhat anomalous phylogenetic position, to supplement the original description extensively.

Face with appressed scales. Palpus short (scarcely over 1), rough-scaled. Tongue well developed. Antenna of ♂ pectinate. Hindtibia of ♂ dilated, with a groove, no doubt concealing a hair-pencil, but not attended by any basal abdominal spine. Forewing not crenulate; fovea strong; SC^1 from SC^2 near its base, running into C. Hindwing with termen not crenulate, only with the minutest concavity between the radials. Apparently a link between *Alcis* (sens. lat.) and *Abraxas*, in many respects agreeing with *Alcis* (?) *concinna* Warr. (1906). Expanse 24 mm. Forewing: the "double curved fascia" is the antemedian with its attendant proximal shade, and is almost as near the cell-mark as is the median shade, the close approach of these two lines being about M^2 and the fold; the "broad submarginal fascia" extends from the white subterminal line to the tips of the outward teeth of the postmedian (Warren's "exterior lunulate line"); the subterminal line is rather thick, sends out a projection proximal in cellule 6, and curves outward behind M^2 to a slight toral spot.

moderate, diminishing gradually, apical fourth (approximately) non-pectinate. Hindtibia more strongly dilated; basal abdominal spine well developed.—*Forewing* with termen anteriorly a trifle more oblique; venation typically as in *albigriscia* type, but variable, SC^1 connate (very occasionally even from cell) to moderately stalked with SC^2 , usually running into C, sometimes a weak end of C escaping after rather long anastomosis; markings very variable in extent, always essentially as in *albigriscia*, but somewhat blacker; cell-mark strong; subterminal decidedly more sinuous between the anterior projection and the posterior curve; proximal subterminal shade often more spotted with white; a midterminal white spot, often more conspicuous than in *albigriscia* type, where it is small and bracket-shaped.—*Hindwing* with termen slightly less smooth than in *albigriscia*; generally less irrorated; postmedian line as well developed as median, or more so; posterior part of proximal subterminal shade often strong and rather thick.—Underside as upper (perhaps a further suggestion to Warren of "*Fidonia*").

Singolangoe, 22 ♂♂, 11 ♀♀, including the type ♂; Nongkodjadar and Kletak (Tengger), rather shorter series; Djoenggo (Ardjoeno), 2 ♀♀.

34. *Ectropis anisodroma* sp. n.

♀, 50 mm. From the well-known Indo-Malayan representatives of the *erepuseularia* [Schiff.] group—*bhurmitra* (Walk., 1860) and *dentilincata* (Moore, 1867), with their races and nearest allies, including the *longiscapia* Prout (1926) of the Tengger district—distinguishable as follows:

Forewing appreciably broader, with termen less oblique; dark irroration quite sparse; cell-mark strengthened, elongate; lines less oblique; antemedian (after its subeostal angulations) almost straight; median almost straight, well proximal to cell-mark; postmedian very little beyond cell-mark, straightish from costa to median (only with rather thick black outward teeth on R^1 and M), weakly incurved between M and a small black tooth on SM^2 ; a small light-buff spot in base of cellule 3, offset by the more cinnamon, blackish-mixed shade which follows (i.e. the characteristic double tooth-mark of the group); pale area between outer shade of postmedian and subterminal broadened and clear.—*Hindwing* with the postmedian decidedly more sinuous than in the allies, incurved behind the tooth at base of R^3-M^1 , strongly oblique behind.

The ground-colour (probably variable) is intermediate between the white of *longiscapia* ♀ and the ochreous tint of most *bhurmitra*, the ochreous or brownish of the transverse shades with a faint suggestion of olivaceous. The whitish underside shows the cell-mark of the forewing and indistinct indications of the two principal lines; subterminal shade scarcely indicated except as a distinct costal mark (forewing only).

Kletak, Tengger, 6,000 feet, May 1934 (J. P. A. Kalis), the type only. A ♀ from Tosari (E. A. Cockayne) has long stood unnamed in my collection.

35. *Ectropis simplaria meseres* subsp. n.

♂♀. Less brownish-tinged, both above and beneath, than *s. simplaria* (Swinh., 1894), the subterminal shades of the upperside stronger; altogether intermediate towards *submarginata* (Warr., 1906), which is probably a further race.

Nongkodjadjar, a moderate series, besides a few from the other localities, up to 6,000 feet.

36. *Ruttelerona kalisi* sp. n.

♂, 42–46 mm.; ♀, 44–49 mm. Structure about as in the genotype (*cessaria* Walk., 1860). Head, body and ground-colour of wings more olive-tinted than in any other *Ruttelerona*. Face largely blackish, showing a narrow area (in ♀) or less narrow (in ♂) above and below of the ground-colour.

Wings, as in most *Ruttelerona*, considerably darker in the ♀ than in the ♂. —*Forewing* with termen appreciably less oblique than in *cessaria*, less crenulate than in the *lithina* (Warr., 1903) group; an ill-defined, fairly broad, dull reddish suffusion along hindmargin from near base to near termen; cell-spot blackish, less large than in *cessaria*; median line and—at least in the ♂—the postmedian and sometimes the antemedian forming black spots at costa; antemedian slender, ill-defined, irregularly sinuous; median rather thick, at least in middle and at hindmargin, fairly direct, crossing the cell-spot; postmedian from scarcely $\frac{2}{3}$ costa, punctuated on the veins, slightly incurved between costa and R^1 and still more slightly between the radials, from R^3 markedly oblique inward, at hind margin meeting the postmedian of the hindwing; subterminal showing slender pale, proximally black-filled lunules, less strongly interrupted than in most *Ruttelerona*; distal area not strongly darkened, only with ill-defined longitudinal streaks; terminal black marks lunular; fringe with pale line at base and slight pale intersection.—*Hindwing* crenate, rather more evenly than in most of the allies; markings of forewing continued; median area, especially in the ♂, markedly paler than the rest; postmedian line different from that of any previously known *Ruttelerona* in that it bulges definitely at R^3 - M^1 and curves rather strongly inward between M^2 and SM^2 ; distal area rather irregularly clouded, the subterminal more macular anteriorly and forming a broad continuous pale streak from abdominal margin about to M^2 .

Underside with the same general scheme as in the other species, the form of the principal markings as distinctive as above.

Trettes, May 1932, 1 ♀, which was held over for further material; Nongkodjadjar, January–May 1934, 6 ♀♀; Singolangoe, April 1934, 2 ♂♂, one of them made holotype; Kletak, June 1934, 2 ♂♂, 2 ♀♀; Djoenggo, June 1934, 2 ♀♀.

37. *Racotis neonephria* sp. n.

♂, 49–54 mm. (rarely smaller). Similar to *inconclusa* (Walk., 1860). Antennal fascicles similarly long and with the outer series (from about the 14th to the 32nd) set on triangular teeth. Tone browner (considerably less olivaceous than in fresh *inconclusa*, less ochreous than in faded ones); abdomen above with a very noticeable reddish patch at base.—*Forewing* with the markings generally somewhat less blurred, a pale patch between median and postmedian lines at base of R^3 and M^1 (just discoverable, with close attention, in most *Racotis*) here arrestingly conspicuous, very light buff; postmedian line generally better developed, after the deep inward curve at M^2 almost perpendicular, only with a small black tooth at SM^2 .—*Hindwing* with the cell-mark subovate or reniform, with a pale centre (thus more as in *boarmiaria* Guen. than in *inconclusa*); postmedian less sinuous and considerably less deeply dentate than in *inconclusa*, the duplicating shades outside it generally much weaker.—Underside less

clean-looking and less buff than in *inconclusa*, the band much less black, on the hindwing often much less complete (approximating to that of the following species), on the forewing without the large and conspicuous pale apical spot.

Djoenggo, Ardjoeno, 4,500 feet, June 1934, 3 ♂♂, including the type; Nongkodjadjar, 3 ♂♂, 1 ♀; Singolangoe, 2 ♂♂, 1 ♀; Kletak, May 1934, 1 ♂; Waterfall Baoeng, 1,200 feet, July 1934, 1 ♂.

The ♀♀ expand 52–54 mm., are still browner, still less dark-coloured above, the lines rather strong; the antennal ciliation at base seems less long than in *inconclusa* ♀.

38. *Racotis anaglyptica* sp. n.

♂♀, 50–51 mm. Structurally distinct from *inconclusa* and *neonephria* in the decidedly less long fascicles of the ♂ antenna (scarcely over 2) and the quite rudimentary teeth from which they spring; thus agreeing with the Indian (*boarmiaria* form. ?) *obliterata* Warr. (1894), to which it might almost be attached as a race.

Head and body concolorous with wings; abdomen with some conspicuous paired brown spots, which become very ill-developed on the posterior segments.

Forewing very slightly narrower than in the allies; olivescient, but looking much paler and more variegated than Javan *inconclusa*, the parts between the lines (especially an almost entire band between median and postmedian) conspicuously pale, the dark markings strong; markings, except for their greater intensity, almost exactly as in *obliterata*, only the broad dark part of median shade (M² to hindmargin) still more broadened, blackest at its edges.—*Hindwing* with abdominal margin slightly less long than in *inconclusa*; coloration and sharpness of markings as on forewing and similarly differentiated from those of *obliterata*.

Underside as in the more extreme *obliterata* or as in fairly well-marked *cogens* Prout (1929); only in the ♀ with the borders more complete, confusingly similar to some ♂♂ of *neonephria*.

Kletak, Tengger, 6,000 feet, June 1934, 4 ♂♂; Djoenggo, Ardjoeno, 4,500 feet, June 1934, 1 ♀, with the antennal ciliation about as in *neonephria*.

39. *Necyopa anetotasis* sp. n.

♂, 28–32 mm. In the head, body and forewing, so far as has yet been made out, an exact counterpart of heavily marked *triangularis* (Warr., 1896, as *Polyphodes*) from W. Java, i.e. with the fuscous markings a good deal mixed with velvety black, usually forming rather strong ante- and postmedian bands.—*Hindwing* also very similar to that of *triangularis* but definitely less produced to the tornus, the markings distinct across the entire wing, the whole distal area (except the restricted green parts) usually suffused with deeper violet-grey; beneath with the specialized tornal clothing less dense and much more restricted (in *triangularis* it extends narrowly to before R³, in *anetotasis* it scarcely crosses M²), the markings here strengthened, the postmedian approaching nearer to hindmargin, the distal area with large additional subterminal spot on M¹, sometimes reaching to M².

♀ the same, but with the hindwing not elongate tornally.

Kletak, Tengger, 6,000 feet, May and June 1934, 33 ♂♂, 5 ♀♀ (the type series); also similar but shorter series from Nongkodjadjar, Singolangoe and Djoenggo, the ♂♂ always equally preponderant.

The distinction in the hindwing shape can be roughly indicated by even "macroscopic" measurements; in *triangularis* each of the three margins measures about 10 mm., in *anetolasis* of similar size the costal about 10 mm., each of the others about 9 mm. Antenna of ♂ pectinated to at least joint 40; *subtriangula* Prout (1932, Kinabalu) differs not only in the antenna, but in the slightly more pronounced anal lobe of the hindwing, less acute projections of the postmedian line, less strong band-like shade outside it, but generally stronger subterminal band beneath (these last points, however, variable).

40. *Craspedosis nigriclathrata plera* subsp. n.

♂♀. Different from *C. n. nigriclathrata* (Warr., 1896, Soekaboemi) in the much amplified black markings: oblique subbasal band of forewing, and generally of hindwing, two or three times as broad, apical and terminal patch of hindwing considerably widened, the enclosed white marks reduced or obsolete; black terminal wedge-marks of hindwing so much enlarged as almost to become confluent with subterminal band, merely enclosing small oblong or triangular white spots.

Singolangoe, type ♂ and 2 ♀♀; Nongkodjadjar, 1 ♀; Djoenggo, 20 ♂♂, 2 ♀♀; Waterfall Baoeng, 1,200 feet, July 1934 (J. P. A. Kalis), 2 ♀♀.

Although only the original ♂ of the West Javan form is known to me, there is little doubt that here, as so generally, we have to deal with two valid races.

41. *Abraxas wegneri* sp. n.

♀, 48–56 mm. Head and body orange, with the usual black markings heavy (about as in strongly marked *invasata* Warr., 1897).

Forewing with SC^{1+2} rather shortly or moderately stalked, SC^1 running into C; white; basal area (about 2 mm.) mixed orange and black, bounded by a narrow black band which is typically interrupted (in an aberration constricted) midway between M and SM^2 ; the rest of the wing typically unmarked except by an irregular costal and a less irregular distal black border, the former in places encroaching into the cell, its posterior edge submacular (in the Singolangoe ♀ with the first spot between SC^5 and R^1 isolated, through a constriction of this part of the border), the latter between 3 mm. and 4 mm. wide, its proximal edge merely undulate.—*Hindwing* fairly broad, termen waved; white; basal patch narrower than on forewing; a very small black spot at costa before middle; a roundish black spot at about $\frac{3}{5}$ abdominal margin, bounded by SM^2 ; a black distal border, manifestly double, consisting of a solid terminal element 1 mm. to over 2 mm. wide from C to abdominal margin and a chain of large subterminal spots from costal to abdominal margin, centred on the veins, partially confluent with one another and largely confluent with the terminal element.

Underside the same.

Nongkodjadjar, March and April 1934, the type and 3 others; Singolangoe, 1 ♀.

Certainly variable, but very distinct in its elegant bordering. The type and one other are asymmetrical in possessing on the left hindwing an additional (small) spot in anterior angle of cell; another has the same on right hindwing only; the three Nongkodjadjar paratypes have the black borders a little broadened, a rather large black cell-spot developed and sometimes a few small (asym-

metrical) spots scattered on each forewing. The Singolangoe ♀ varies in the opposite direction, the borders being narrow, the distal ones enclosing some white marking.

Just as we go to press, a ♂ and 2 ♀♀ from Djoenggo come to hand, one ♀ normal, the other similar to the last described, the ♂ smaller (42 mm.) with the subterminal spots of the hindwing completely free from the black border and even the corresponding markings of the forewing showing this composite formation (roundish subterminal spots only slightly confluent with black border). Antennal fascicles of the ♂ fairly long (the longest nearly 2), hindwing of ♂ with costal expansion near base, cell with a small foveal formation near base, dilatation of hindtibia moderate.

42. *Semiothisa lalage* sp. n.

♂, 31–35 mm. Antennal ciliation about 1. Hindtibial pencil well developed. Head and body concolorous with wings; upper edge of face with some blackish scaling; abdomen dorsally with paired spots, the anterior pairs blackish, the posterior ones browner, to obsolescent.

Forewing rather narrow, the termen with anterior excision strong, behind it strongly oblique (about as *alternaria* Hb. or slightly more elongate); $SC^{1,2}$ coincident, free; variable, typically whitish buff with more or less fawn-coloured tinge, the distal area more definitely suffused with fawn (in some examples coloured almost like the ♀, see below); some rather sparse dark and very sparse black irroration; costal edge with irregular black dots and streaks, at the beginning of the lines with outwardly oblique dark marks, the first two rather thick, the postmedian slender and longer, about SC^5 meeting a large, thick, comma-shaped dark mark which runs from costa (nearer the apex) in the opposite direction; cell-dot black; antemedian and median lines grey, the former slender, the latter weak outside the cell-dot, fairly thick from M (just beyond base of M^2) to hindmargin, oblique inward, between the medians slightly sinuate; postmedian acutely produced outward in its anterior part, but interrupted just in front of R^1 by a whitish streak which runs from apex, the rest of its course in the type-form emphasized by a very thick and sharply marked blackish line (much as in *tenuata* Stgr., Seitz' *Macrolep.*, iv. t. 18 i, though more strongly bent); a dark shade connecting this line with the mark round the terminal excision, which is also thick and blackish; termen posteriorly with small black vein-dots. — *Hindwing* with the tail pronounced; concolorous with forewing; a black cell-dot; median line double, proximal thereto, incurved in cell; the blackish postmedian continued, straightish, thickest in its middle part; a wavy whitish subterminal less indefinite than on forewing; proximal to it a blackish spot between R^3 and M^1 , usually slenderly connected with the middle of the postmedian; termen with black marks at veins.

Underside gay, with much more ferruginous shading (strongest outside the postmedian line); irroration, at least in proximal part, stronger and coarser; markings of upperside reproduced with little modification, median darker, postmedian of forewing in its anterior sweep weakened, a slender straightish line (the true postmedian?) running from it at R^3 to the costal spot; apical streak of forewing and subterminal of hindwing purer white, the hindwing with some additional white apically.

♀ generally larger; darker and much duller (about as dark as *feraliata* Guen.,

Oberth., *Et. Léop.*, xx, fig. 4751, but slightly more violaceous and without the red-brown shades), postmedian line slender, markings otherwise approximately as in the ♂.

Nongkodjadjar (loc. typ.); Singolangoe; Kletak; Djoenggo, 4,500 feet; a good series.

Certainly close to "*Evarzia*" *tripunctata* Warr. (1899, S. Flores), only known from the type ♂, perhaps a race; but as Warren's description brings out nothing which I should have needed to emphasize I have perforce described it independently. Slightly narrower-winged, more sharply marked, the "three dots" on the postmedian of the hindwing nearly always united (in only one example showing the tripartite formation), the "true postmedian?" (which is faintly discernible even on the upperside, though not mentioned there in either of our descriptions) straighter, being in *tripunctata* type definitely excurved, but of course much less deeply than in the apparent postmedian.

43. *Semiothisa temeraria cruda* subsp. n.

♂♀. Greyer or less ochreous-tinged than *S. t. temeraria* (Swinh., 1891), with more appreciable white admixture close to the apex of the forewing (sometimes forming a more definite white spot); median shade broader, particularly on the forewing from the cell hindward; postmedian line of hindwing generally stronger, especially beneath.

Nongkodjadjar, the type ♂; Singolangoe, 1 ♂, 6 ♀♀; Djoenggo, 5 ♀♀.

In addition to the above, there are 3 ♀♀ of ab. *fumosa* Warr (1896), correspondingly darker than the Khasi type of that melanochoiric form, the blackest cloudings more extended. Singolangoe, 2; Kletak, 1.

44. *Semiothisa perspicuaria pleres* subsp. n.

♂♀. On an average somewhat smaller than *S. p. perspicuaria* (Moore, 1867), much less warmly coloured, the upperside darker, much more heavily irrorated, especially in the ♂, the purplish-grey suffusion of the terminal area of the forewing commonly continued, especially in the ♂♂, as a subterminal band on the hindwing, the conspicuous blackish subterminal spot of the hindwing, on the other hand, commonly weakened, sometimes almost obsolete.

Nongkodjadjar (including the type ♂), Singolangoe and Kletak, good series; Djoenggo, 1 ♂, 3 ♀♀.

An interesting melanochoiric aberration occurs in this race also, in all the localities and in both sexes, 6 examples altogether, and may be called ab. *fumosa* nov.: ground-colour above and beneath very largely, or almost entirely, suffused with dark purple-grey, sometimes with a brown admixture; an ill-defined pale area persists in the posterior part of the terminal area of the hindwing, also the white subapical spot of the forewing; abdomen strongly infuscated.

45. *Callierinnys combusta flammida* subsp. n.

♂, 30-32 mm. Rather smaller than *c. combusta* (Warr., 1893), colour more uniform bright orange or reddish orange, the dark blotches of distal area much reduced in extent, the postmedian line of the hindwing straightish to near hind-margin, thus approaching the median and narrowing the pale interspace, in which there remains little sign of the white spot at the radials; cell-dot of hindwing conspicuous,

Nongkodjadjar, 2 ♂♂. A larger, browner ♂ from Singolangoe is evidently a striking aberration of the same.

The same or a closely similar race occurs in Sumatra (Korintji and Padang Bovenland).

46. *Hydatocapnia marginata demensa* subsp. n.

Closely similar to the name-typical *marginata* Warr. (1893) of North India. Upperside duller, more suffused with grey, the basal patch of the forewing generally strengthened posteriorly. Underside with the borders narrower, less variable, on the forewing reaching only a width of 4 mm. at C (its widest part), on both wings—especially in the ♀♀—becoming pale, or at least paler-mixed at termen.

Nongkodjadjar, 3 ♂♂, 11 ♀♀, including the type ♂; Singolangoe, 1 ♂, 11 ♀♀; Kletak, 2 ♀♀.

A new species for Malaysia.
